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(54) SOLAR CELL HAVING PHOTO-CONDUCTION LAYER CONTAINING POLYSILANE AND ORGANIC SEMICONDUCTOR COMPOUND

(57)Abstract:

PURPOSE: To obtain solar cells having a high production efficiency and a low cost by providing a photo-conduction layer obtained by scattering an organic semiconductor compound and polysilane having alkyl group or/and aryl group for side chain and providing a metal electrode on or below the photo-conduction layer.

CONSTITUTION: On a supporting body 101, sequentially formed are the first conduction layer 102, a photo-conduction layer 103 comprising a layer made by dispersing an organic semiconductor compound and polysilane having alkyl group and/or aryl group as side chain, the second conduction layer 104 forming a Schottky barrier with the photo-conduction layer and a reflection preventive layer 105. Also, lead wires 106 and 107 are provided. The Schottky barrier type solar cell having the configuration as stated above will not be deteriorated even after a long period of use, will stably provide a photo-electric conversion efficiency desired and can be efficiently produced with a good yield. By doing this, the solar cells can be produced efficiently with a good yield at a low cost.

